

Amendments to the Abstract:

Please cancel the Abstract which appears on pages 143 and 144, and substitute the following Abstract therefore.

The present invention relates to “closed loop” processes, systems, and compositions for enhancing the flame retardant properties of substrates containing at least about 5 percent weight of non-thermoplastic materials. The processes and systems include apparatuses and methods for removing, recovering, and reusing excess flame retardant compositions, thereby mitigating the environmental detriments consistent with waste fire retardant composition. A further benefit of minimizing waste according to the present invention is the reduced cost for the fire retardant composition, and the reduced cost of waste disposal. The disclosed process and system enables multiple batches of substrates to be processed in a pipeline fashion, whereby the excess fire retardant composition is reused and shared between multiple “parallel” processes.